

Notice of Allowability

Application No.

10/524,465

Examiner

Jennifer M. Dolan

Applicant(s)

FUJII ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/6/07 Amdt.
2. ☒ The allowed claim(s) is/are 1-9, 12 and 30-32.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 7/5/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

DETAILED ACTION

This action is in response to the Amendment of 06 August 2007

Election/Restrictions

1. This application is in condition for allowance except for the presence of claims 10, 11, and 13-29 directed to an invention non-elected without traverse. Accordingly, claims 10, 11, and 13-20 have been cancelled.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 10, 11, and 13-29 have been cancelled.

Allowable Subject Matter

3. Claims 1-9, 12, and 30-32 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-9 and 12, the primary reason for allowance is the limitation of source and drain electrodes having branching-off parts located off of the formation area of the semiconductor layer, with the branching-off parts suitable for use as drop-on positions for droplet application for an electrode raw material, and with the branching off parts spaced sufficiently far from the channel region to permit drop-on formation of the electrodes.

The closest prior art of record (see US 6,545,291 to Amundson or US 2003/0059984 to Sirringhaus) teaches the use of source and drain electrodes having branching-off sections, and additionally suggests source/drain electrode formation using droplets of an electrode raw material. In these references, however, the branching-off portions are not located spaced apart from the channel section and off of the semiconductor formation area. Alternately, some prior art of record (see JP 02-275672 to Ota et al. or JP05-283695 to Hori, both cited by Applicant) teaches spacing of branching-off portions of the source or drain electrode away from the channel region and off of the semiconductor formation area. Since these references do not provide specific motivation for disposing the branching-off portions away from the channel region, it is the Examiner's opinion that there is insufficient motivation for combining the prior art to achieve the claimed invention. The Examiner further notes that the prior art taken as a whole fails to teach or suggest the critical and unobvious effect of locating the branching-off portion off of the semiconductor material and spaced apart from the channel to prevent undue splashing of the electrode material onto the channel of the device.

Regarding claim 30, the primary reason for allowance is the limitation of having the source or drain electrode gradually widen toward the semiconductor formation area in a structure including a branching-off section, in addition to the other limitations in the claims. The closest

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prior art of record is US 2002/0145144 to Kane, which teaches a source electrode having portions that narrow toward the semiconductor formation area. The prior art provides no suggestion of the claimed widening of the electrode, nor is there any teaching of the critical effect of facilitating droplet flow toward the channel region.

Regarding claims 31 and 32, the reasons for allowance are deemed to be of record, as set forth in the Office action of 04 May 2007, as applied to claims 8 and 9.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer M. Dolan whose telephone number is (571) 272-1690. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571)272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer M Dolan
Examiner
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